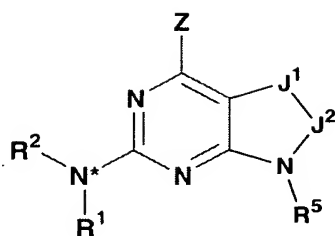


We claim:

1. A compound of Formula (I)



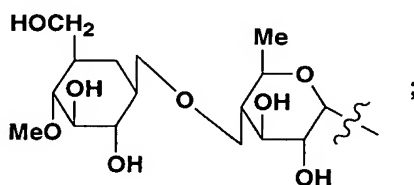
(I)

their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein:

R<sup>1</sup> is hydrogen or alkyl;

R<sup>2</sup> is

- (a) heteroaryl or heterocyclo, either of which may be optionally independently substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup>;
  - (b) aryl substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup>, and/or T<sup>3</sup> provided that at least one of T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup> is other than H; or
  - (c) aryl fused to a heteroaryl or heterocyclo ring forming a fused ring system bound to N\* through the aryl wherein the fused ring system may be optionally independently substituted with one to three groups selected from T<sup>1</sup>, T<sup>2</sup> and/or T<sup>3</sup>;
- provided that R<sup>2</sup> is not



- 20 Z is -NR<sup>3</sup>R<sup>4</sup>, -NR<sup>3</sup>SO<sub>2</sub>R<sup>6</sup>, OR<sup>4</sup>, SR<sup>4</sup>, haloalkyl or halogen;  
J<sup>1</sup> is O, S, S(O), S(O)<sub>2</sub> or optionally substituted C<sub>1-3</sub> alkylene;  
J<sup>2</sup> is carbonyl or optionally substituted C<sub>1-3</sub> alkylene, provided that J<sup>1</sup> and J<sup>2</sup> taken together do not form an alkylene chain of greater than 4 carbon atoms;

$R^3$  and  $R^4$  are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^4$ ,  $T^5$  and/or  $T^6$ ;

- 5 or  $R^3$  and  $R^4$  may be taken together with the nitrogen atom to which they are attached to form a heterocyclo or heteroaryl ring, either of which is optionally independently substituted where valance allows with one to three groups independently selected from  $T^4$ ,  $T^5$  and/or  $T^6$ ;

$R^5$  is

- 10 (i) H, cyano, alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or  
 (ii)  $-C(O)_tR^7$ ,  $-C(O)-C(O)-C(O)OR^7$  or  $-SO_2R^8$ ;

- 15  $R^6$  is alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo, or (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^4$ ,  $T^5$  and/or  $T^6$ ;

$R^7$  is

- 20 (i) H, alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or  
 (ii)  $-NR^9R^{10}$  or  $(NR^9R^{10})alkyl$ ;

25  $R^8$  is

- (i) alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or  
 30 (ii)  $-NR^9R^{10}$  or  $(NR^9R^{10})alkyl$ ;

;

$R^9$  and  $R^{10}$  are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be optionally independently substituted where valence allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ;

5  $T^1$ - $T^9$  are each independently

- (i) alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl,  $-OT^{10}$ ,  $-SH$ ,  $-ST^{10}$ ,  $-C(O)_tH$ ,  $-C(O)_tT^{10}$ ,  $-O-C(O)T^{10}$ ,  $T^{17}C(O)_tN(T^{11})T^{10}-SO_3H$ ,  $-S(O)_tT^{10}$ ,  $S(O)_tN(T^{11})T^{10}$ ,  $-T^{12}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{11})-T^{13}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{16})-T^{15}-T^{10}$  and  $-T^{12}-N(T^{16})-T^{13}-H$ ; or
- (ii) halo, cyano, nitro, OH, oxo,  $-SH$ , amino,  $-OT^{10}$ ,  $-ST^{10}$ ,  $-C(O)_tH$ ,  $-C(O)_tT^{10}$ ,  $-O-C(O)T^{10}$ ,  $T^{17}C(O)_tN(T^{11})T^{10}$ ,  $-SO_3H$ ,  $-S(O)_tT^{10}$ ,  $S(O)_tN(T^{11})T^{10}$ ,  $-T^{12}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{11})-T^{13}-NT^{14}T^{15}$ ,  $-T^{12}-N(T^{16})-T^{15}-T^{10}$  or  $-T^{12}-N(T^{16})-T^{13}-H$ ;
- 10  
15  
20

$t$  is 1 or 2;

$T^{10}$  is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl;

25  $T^{12}$  and  $T^{13}$  are each independently a single bond,  $-T^{17}-S(O)_t-T^{18}-$ ,  $-T^{17}-C(O)-T^{18}-$ ,  $-T^{17}-C(S)-T^{18}-$ ,  $-T^{17}-O-T^{18}-$ ,  $-T^{17}-S-T^{18}-$ ,  $-T^{17}-O-C(O)-T^{18}-$ ,  $-T^{17}-C(O)_tT^{18}-$ ,  $-T^{17}-C(=NT^{19})-T^{18}-$  or  $-T^{17}-C(O)-C(O)-T^{18}-$ ;

$T^{11}$ ,  $T^{14}$ ,  $T^{15}$ ,  $T^{16}$  and  $T^{19}$  are each independently

- (i) hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently
- 30

- substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup>; or
- (ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup>, —SO<sub>3</sub>H, or —S(O)<sub>i</sub>T<sup>22</sup>; or
- (iii) T<sup>14</sup> and T<sup>15</sup> may together be alkylene or alkenylene, completing a 3- to 8-membered saturated or unsaturated ring together with the atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (iv) T<sup>14</sup> or T<sup>15</sup>, together with T<sup>11</sup>, may be alkylene or alkenylene completing a 3- to 8-membered saturated or unsaturated ring together with the nitrogen atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (v) T<sup>14</sup> and T<sup>15</sup> or T<sup>11</sup> and T<sup>16</sup> together with the nitrogen atom to which they are attached may combine to form a group —N=CT<sup>20</sup>T<sup>21</sup>;
- T<sup>17</sup> and T<sup>18</sup> are each independently a single bond, alkylene, alkenylene or alkynylene;
- T<sup>20</sup> and T<sup>21</sup> are each
- independently hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup>; or
  - halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>i</sub>T<sup>22</sup> or S(O)<sub>i</sub>N(T<sup>11</sup>)T<sup>22</sup>; and

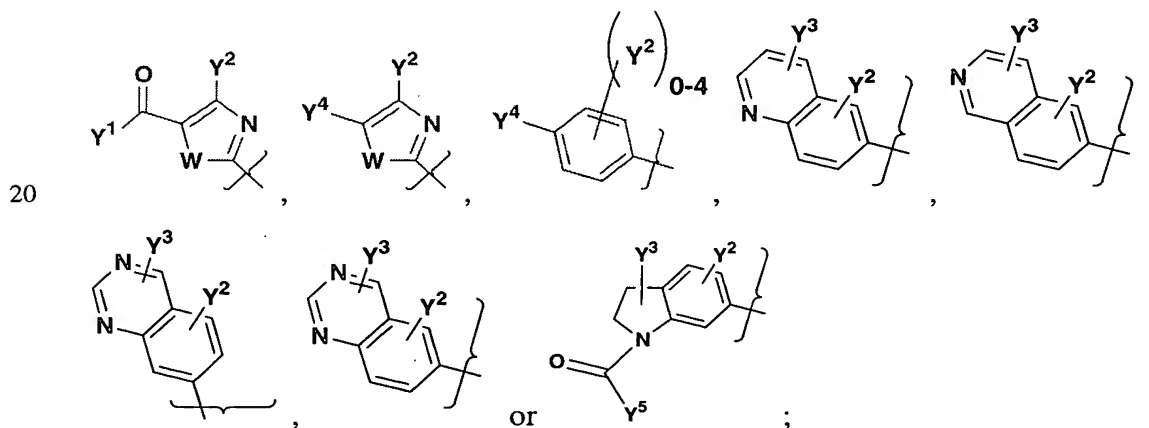
$T^{22}$  is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl.

2. A compound of claim 1, their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein

$R^2$  is

- (a) heteroaryl optionally independently substituted with one to three groups selected from  $T^1$ ,  $T^2$  and/or  $T^3$ ;
- (b) aryl substituted with one to three groups selected from  $T^1$ ,  $T^2$ , and/or  $T^3$  provided that at least one of  $T^1$ ,  $T^2$  and/or  $T^3$  is other than H; or
- (c) aryl fused to a heteroaryl or heterocyclo ring forming a fused ring system bound to  $N^*$  through the aryl wherein the fused ring system may be optionally independently substituted with one to three groups selected from  $T^1$ ,  $T^2$  and/or  $T^3$ .

3. A compound of claim 2, their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein  $R^2$  is chosen from:



W is O or S;

$Y^1$  is  $-NHT^{15}$  or  $OT^{10}$ ;

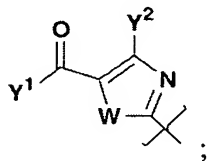
- 25  $Y^2$  and  $Y^3$  are independently hydrogen, halo,  $OT^{10}$ , alkyl or haloalkyl;

$Y^4$  is optionally substituted heteroaryl, cyano,  $C(O)_lT^{10}$  or  $S(O)_lNT^{14}T^{15}$ ; and

$Y^5$  is alkyl, haloalkyl,  $NHT^{15}$  or  $OT^{10}$ .

4. A compound of claim 3, their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein:

$R^2$  is



W is O or S;

$Y^1$  is  $-NHT^{15}$  or  $OT^{10}$ ; or

$Y^2$  is alkyl or haloalkyl.

5. A compound of claim 1, their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein:

$R^1$  is H;

$J^1$  is O, S or optionally substituted  $C_1$  alkylene;

$J^2$  is  $C(O)$  or optionally substituted  $C_{1-3}$  alkylene.;

Z is  $-NR^3R^4$  or halo;

15  $R^3$  is H or alkyl;

$R^4$  is alkyl, cycloalkyl, heterocyclo, (heteroaryl)alkyl, (heterocyclo)alkyl or (aryl)alkyl, any of which is optionally independently substituted where valence allows with one to three groups selected from alkyl, hydroxyalkyl, halo, cyano, OH, oxo, cycloalkyl, cycloalkenyl, heterocyclo, heteroaryl,  $-C(O)_t$   $T^{10}$ ,  $-C(O)_tH$ ,  $-NHC(O)T^{10}$ ,  $C(O)N(T^{14})(T^{15})$ ,  $OT^{10}$ ,  $ST^{10}$ ,  $S(O)_3H$ ,  $S(O)_tT^{10}$ ,  $S(O)_tN(T^{10})(T^{11})$ ,  $T^{12}N(T^{14})(T^{15})$  and  $T^{12}N(T^{16})-T^{15}-T^{10}$ ;

or  $R^3$  and  $R^4$  may be taken together with the nitrogen atom to which they are attached to form a heterocyclo or heteroaryl ring, either of which may be optionally independently substituted where valence allows with one to three groups selected from alkyl, hydroxyalkyl, halo, cyano, OH, oxo, cycloalkyl, cycloalkenyl, heterocyclo, heteroaryl,  $-C(O)_t$   $T^{10}$ ,  $-C(O)_tH$ ,  $-NHC(O)T^{10}$ ,  $C(O)N(T^{14})(T^{15})$ ,  $OT^{10}$ ,  $ST^{10}$ ,  $S(O)_3H$ ,  $S(O)_tT^{10}$ ,  $S(O)_tN(T^{14})(T^{15})$ ,  $T^{12}N(T^{14})(T^{15})$  and  $T^{12}N(T^{16})-T^{15}-T^{10}$ ,

wherein each heterocyclo or heteroaryl is further optionally substituted by one to three groups independently selected from cyano, oxo, hydroxy, alkyl, halo, haloalkyl and  $-OT^{10}$ ;

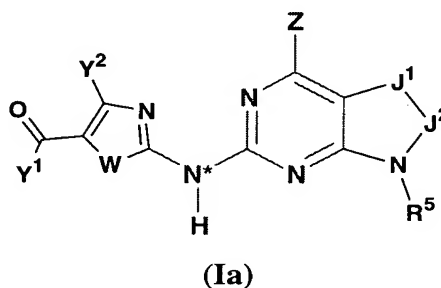
$R^5$  is alkyl, cycloalkyl, (cycloalkyl)alkyl, (aryl)alkyl, (heterocyclo)alkyl or

5 (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits with one to three groups selected from cyano, oxo, hydroxy, alkyl, halo, haloalkyl,  $-OT^{10}$ ,  $-C(O)_tN(T^{14})(T^{15})$ ,  $-C(O)_tNH$   $S(O)_t(T^{11})$ ,  $-S(O)_tT^{10}$ ,  $-S(O)_tN(T^{14})(T^{15})$ ,  $T^{12}N(T^{14})(T^{15})$ ,  $-C(O)_tT^{11}$ , heterocyclo and heteroaryl,

10 wherein each heterocyclo or heteroaryl is further optionally substituted by one to three groups selected from cyano, oxo, hydroxy, alkyl, halo, haloalkyl, and  $-OT^{10}$ .

6. A compound of Formula (Ia)

15



(Ia)

their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein:

20 W is O or S;

Y<sup>1</sup> is  $-NHT^{15}$  or  $OT^{10}$ ;

Y<sup>2</sup> is alkyl or haloalkyl;

Z is  $-NR^3R^4$  or halogen;

J<sup>1</sup> is O or optionally substituted C<sub>1-3</sub> alkylene;

25 J<sup>2</sup> is carbonyl or optionally substituted C<sub>1-3</sub> alkylene, provided that J<sup>1</sup> and J<sup>2</sup> taken together do not form an alkylene chain of greater than 4 carbon atoms;

R<sup>3</sup> and R<sup>4</sup> are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or

(heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^4$ ,  $T^5$  and/or  $T^6$ ;

or  $R^3$  and  $R^4$  may be taken together with the nitrogen atom to which they are attached to form a heterocyclo or heteroaryl ring, either of which is optionally  
 5 independently substituted where valance allows with one to three groups independently selected from  $T^4$ ,  $T^5$  and/or  $T^6$ ;

$R^5$  is

- (i) H, cyano, alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or  
 10 (heteroaryl)alkyl, any of which may be independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or
- (ii)  $-C(O)R^7$ ,  $-C(O)-C(O)-C(O)OR^7$  or  $-SO_2R^8$ ;

$R^6$  is alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or (heterocyclo)alkyl, any of which may be  
 15 optionally independently substituted where valance allows with one to three groups  $T^4$ ,  $T^5$  and/or  $T^6$ ;

$R^7$  is

- (i) H, alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of  
 20 which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or
- (ii)  $-NR^9R^{10}$  or  $(NR^9R^{10})alkyl$ ;

$R^8$  is

- (i) alkyl, alkenyl, heterocyclo, (heterocyclo)alkyl, (hydroxy)alkyl, (alkoxy)alkyl, (aryloxy)alkyl, heteroaryl, aryl or (aryl)alkyl, any of  
 25 which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ; or
- (ii)  $-NR^9R^{10}$  or  $(NR^9R^{10})alkyl$ ;

$R^9$  and  $R^{10}$  are independently H, alkyl, alkenyl, aryl, (aryl)alkyl, heteroaryl, (heteroaryl)alkyl, cycloalkyl, (cycloalkyl)alkyl, heterocyclo or  
 30 (heterocyclo)alkyl, any of which may be optionally independently substituted where valance allows with one to three groups  $T^7$ ,  $T^8$  and/or  $T^9$ ;



T<sup>1</sup>-T<sup>9</sup> are each independently

- (i) alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, -OT<sup>10</sup>, -SH, -ST<sup>10</sup>, -C(O)<sub>t</sub>H, -C(O)<sub>t</sub>T<sup>10</sup>, -O-C(O)T<sup>10</sup>, -SO<sub>3</sub>H, -S(O)<sub>t</sub>T<sup>10</sup>, T<sup>17</sup>C(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>10</sup>, S(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>10</sup>, -T<sup>12</sup>-NT<sup>14</sup>T<sup>15</sup>, -T<sup>12</sup>-N(T<sup>11</sup>)-T<sup>13</sup>-NT<sup>14</sup>T<sup>15</sup>, -T<sup>12</sup>-N(T<sup>16</sup>)-T<sup>15</sup>-T<sup>10</sup> and -T<sup>12</sup>-N(T<sup>16</sup>)-T<sup>13</sup>-H; or
- (ii) halo, cyano, nitro, OH, oxo, -SH, amino, -OT<sup>10</sup>, -ST<sup>10</sup>, -C(O)<sub>t</sub>H, -C(O)<sub>t</sub>T<sup>10</sup>, -O-C(O)T<sup>10</sup>, T<sup>17</sup>C(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>10</sup>, -SO<sub>3</sub>H, -S(O)<sub>t</sub>T<sup>10</sup>, S(O)<sub>t</sub>N(T<sup>11</sup>)T<sup>10</sup>, -T<sup>12</sup>-NT<sup>14</sup>T<sup>15</sup>, -T<sup>12</sup>-N(T<sup>11</sup>)-T<sup>13</sup>-NT<sup>14</sup>T<sup>15</sup>, -T<sup>12</sup>-N(T<sup>16</sup>)-T<sup>15</sup>-T<sup>10</sup> or -T<sup>12</sup>-N(T<sup>16</sup>)-T<sup>13</sup>-H;

t is 1 or 2;

T<sup>10</sup> is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl,

(cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl;

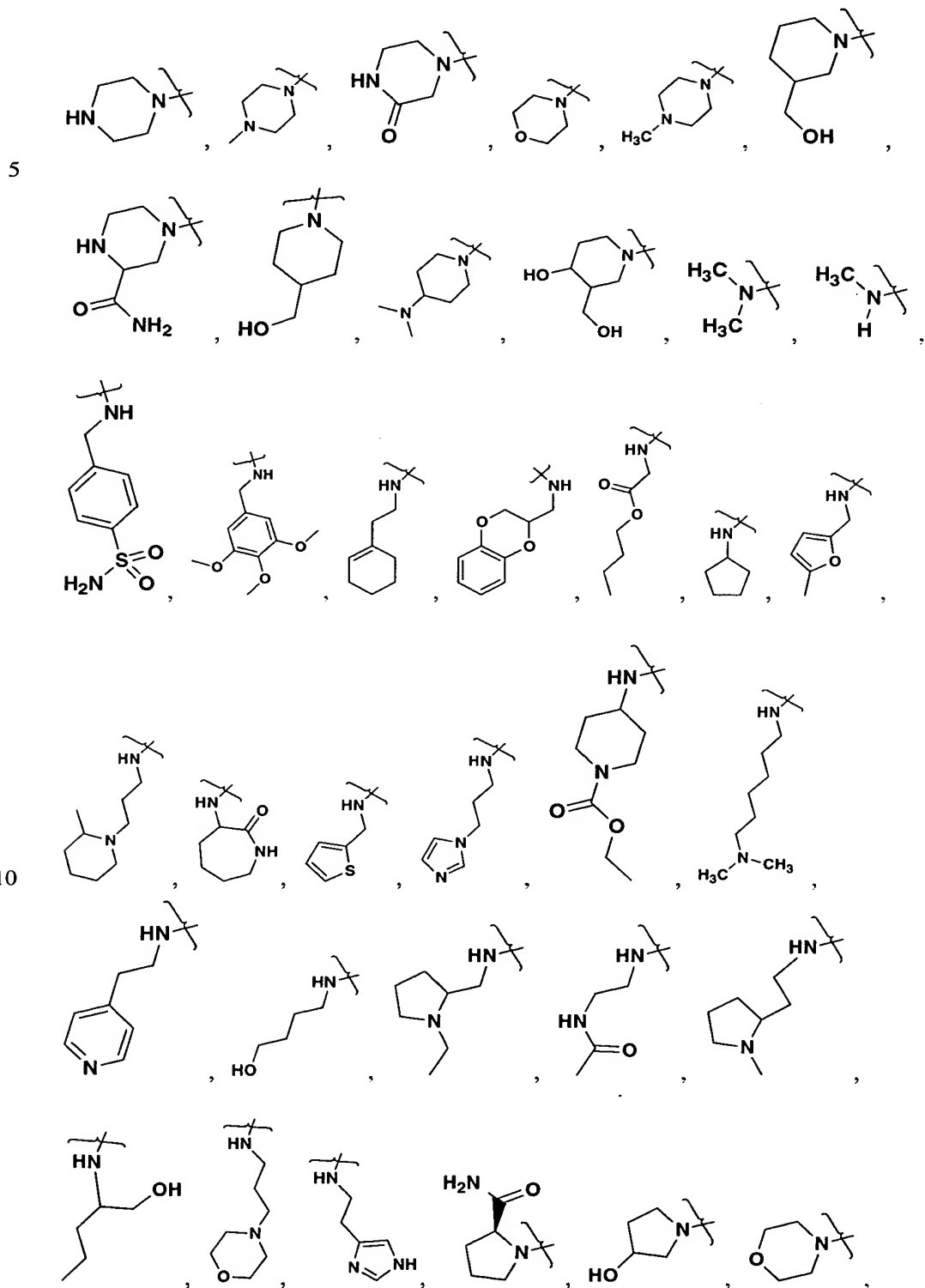
T<sup>12</sup> and T<sup>13</sup> are each independently a single bond, -T<sup>17</sup>-S(O)<sub>t</sub>-T<sup>18</sup>-, -T<sup>17</sup>-C(O)-T<sup>18</sup>-, -T<sup>17</sup>-C(S)-T<sup>18</sup>-, -T<sup>17</sup>-O-T<sup>18</sup>-, -T<sup>17</sup>-S-T<sup>18</sup>-, -T<sup>17</sup>-O-C(O)-T<sup>18</sup>-, -T<sup>17</sup>-C(O)<sub>t</sub>T<sup>18</sup>-, -T<sup>17</sup>-C(=NT<sup>19</sup>)-T<sup>18</sup>- or -T<sup>17</sup>-C(O)-C(O)-T<sup>18</sup>-;

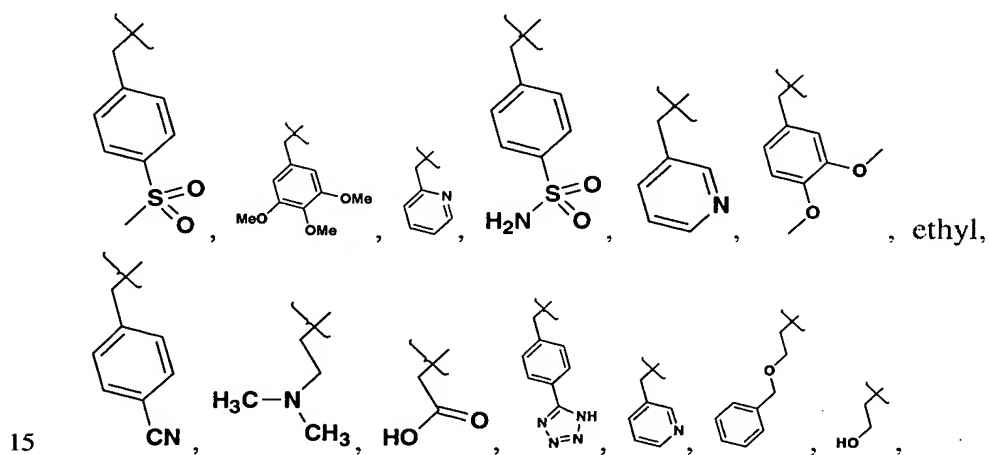
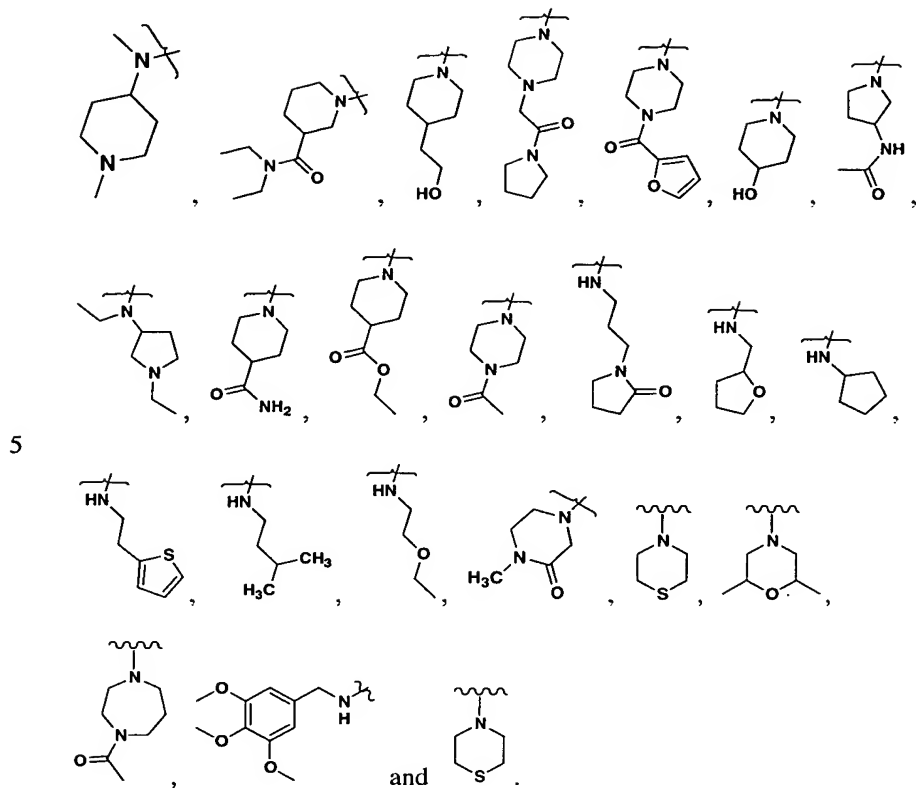
T<sup>11</sup>, T<sup>14</sup>, T<sup>15</sup>, T<sup>16</sup> and T<sup>19</sup> are each independently

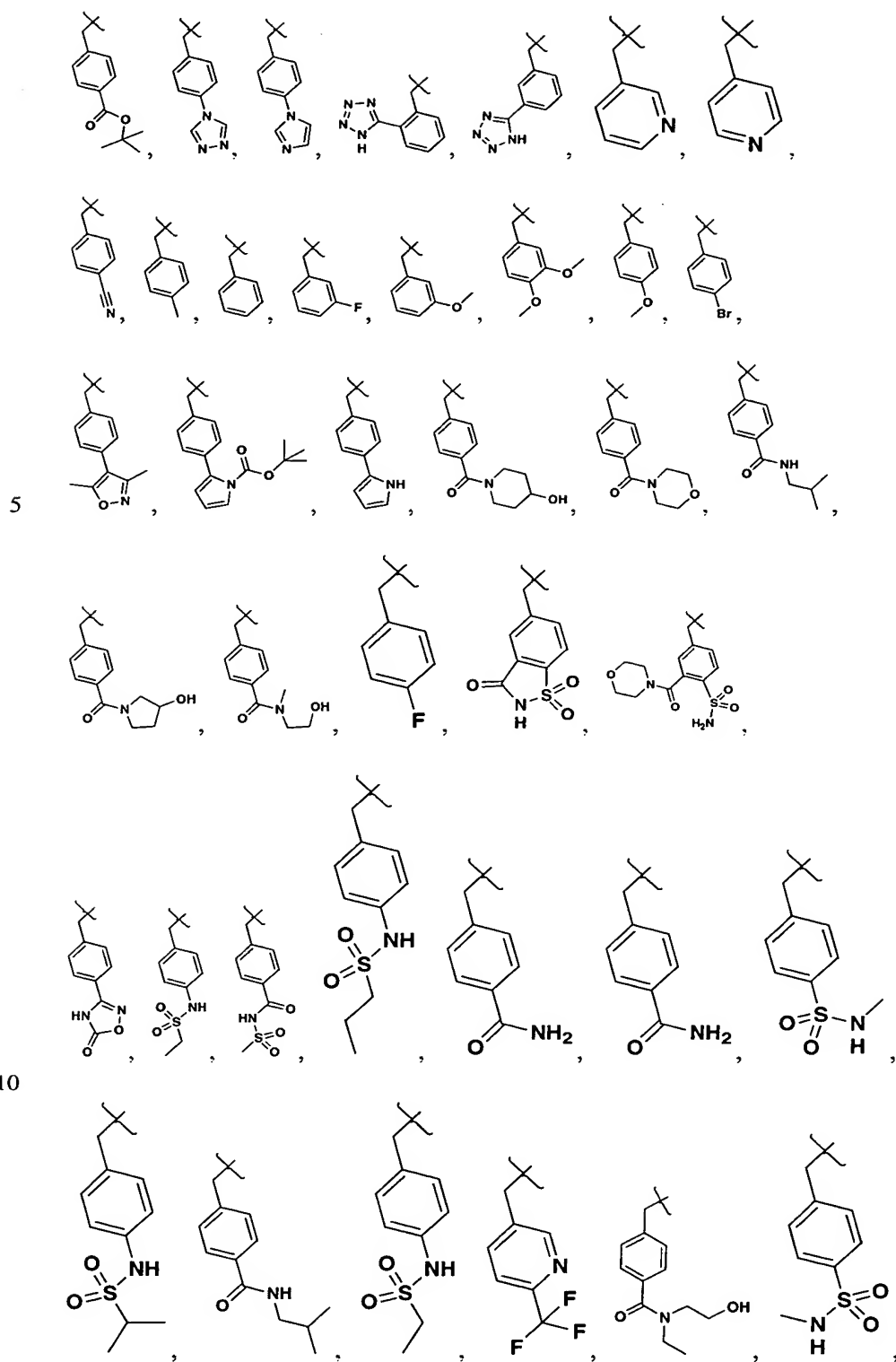
- (i) hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl,

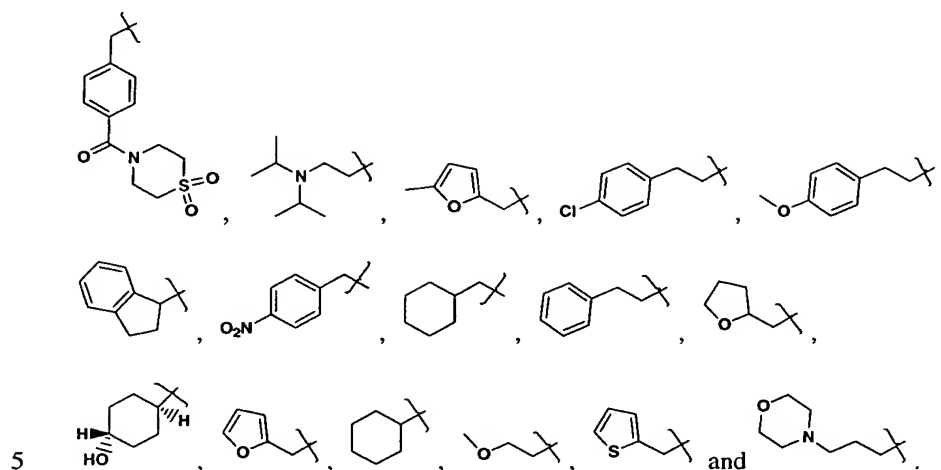
- heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup> or
- (ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>i</sub>T<sup>22</sup> or S(O)<sub>i</sub>N(T<sup>11</sup>)T<sup>22</sup>; or
- 5 (iii) T<sup>14</sup> and T<sup>15</sup> may together be alkylene or alkenylene, completing a 3- to 8-membered saturated or unsaturated ring together with the atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (iv) T<sup>14</sup> or T<sup>15</sup>, together with T<sup>11</sup>, may be alkylene or alkenylene
- 10 completing a 3- to 8-membered saturated or unsaturated ring together with the nitrogen atoms to which they are attached, which ring is substituted with one or more groups listed in the description of T<sup>20</sup>; or
- (v) T<sup>14</sup> and T<sup>15</sup> or T<sup>11</sup> and T<sup>16</sup> together with the nitrogen atom to which they are attached may combine to form a group —N=CT<sup>20</sup>T<sup>21</sup>;
- 15 T<sup>17</sup> and T<sup>18</sup> are each independently a single bond, alkylene, alkenylene or alkynylene; T<sup>20</sup> and T<sup>21</sup> are each
- (i) independently hydrogen, alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl,
- 20 heteroaryl or (heteroaryl)alkyl, any of which may be optionally independently substituted where valence permits by one or more groups selected from alkyl, (hydroxy)alkyl, halo, cyano, nitro, OH, oxo, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl, (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl, (heteroaryl)alkyl, —SH, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup> and —S(O)<sub>i</sub>T<sup>22</sup>; or
- 25 (ii) halo, cyano, nitro, OH, oxo, —SH, amino, —OT<sup>22</sup>, —ST<sup>22</sup>, —C(O)<sub>i</sub>H, —C(O)<sub>i</sub>T<sup>22</sup>, —O-C(O)T<sup>22</sup>, —SO<sub>3</sub>H, —S(O)<sub>i</sub>T<sup>22</sup> or S(O)<sub>i</sub>N(T<sup>11</sup>)T<sup>22</sup>; and
- T<sup>22</sup> is alkyl, (hydroxy)alkyl, (alkoxy)alkyl, alkenyl, alkynyl, cycloalkyl,
- 30 (cycloalkyl)alkyl, cycloalkenyl, (cycloalkenyl)alkyl, aryl, (aryl)alkyl, heterocyclo, (heterocyclo)alkyl, heteroaryl or (heteroaryl)alkyl.

7. A compound of claim 6, their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein Z is selected from:

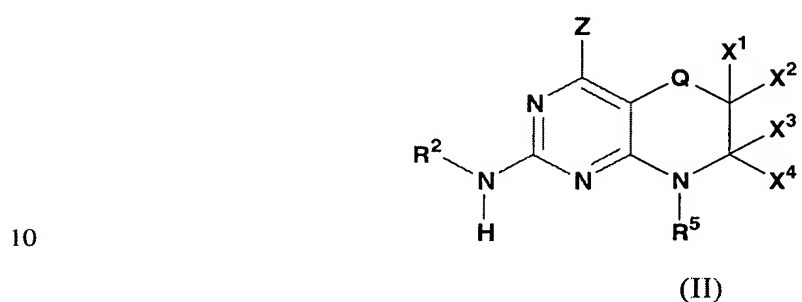








9. A compound of claim 1 having Formula (II)



their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof,

wherein:

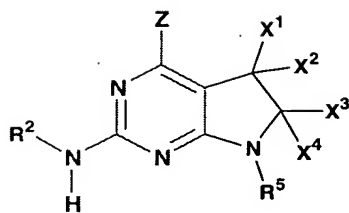
- 15 Q is O, S or optionally substituted C<sub>1</sub> alkylene; and  
X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup> and X<sup>4</sup> are

- (i) independently chosen from hydrogen, T<sup>10</sup>, OT<sup>10</sup> and NT<sup>14</sup>T<sup>15</sup>; or  
(ii) X<sup>1</sup> and X<sup>2</sup> or X<sup>3</sup> and X<sup>4</sup> may be taken together to be a carbonyl group.

- 20 10. A compound of claim 9, their enantiomers, diastereomers, and  
pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein Q is -CH<sub>2</sub>-  
or O.

11. A compound of claim 1 having Formula (III)

25



(III)

their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof,

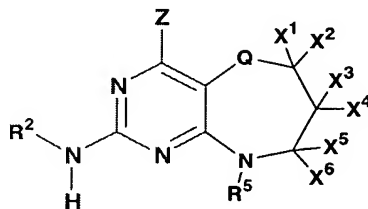
5 wherein:

$X^1$ ,  $X^2$ ,  $X^3$  and  $X^4$  are

- (i) independently chosen from hydrogen,  $T^{10}$ ,  $OT^{10}$  or  $NT^{14}T^{15}$ ; and/or
- (ii) either  $X^1$  and  $X^2$  or  $X^3$  and  $X^4$  may be taken together to be a carbonyl group.

10 12. A compound of claim 11, their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof, wherein  $X_3$  and  $X_4$  are taken together to be a carbonyl group.

13. A compound of claim 1 having Formula (IV)



IV

their enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates thereof,

wherein:

20 Q is O, S or optionally substituted  $C_1$  alkylene; and

$X^1$ ,  $X^2$ ,  $X^3$ ,  $X^4$ ,  $X^5$  and  $X^6$  are

- (i) independently chosen from hydrogen,  $T^{10}$ ,  $OT^{10}$  or  $NT^{14}T^{15}$ ; and/or
- (ii) any one of  $X^1$  and  $X^2$  or  $X^3$  and  $X^4$  or  $X^5$  and  $X^6$  may be taken together to be a carbonyl group.

25

14. A compound selected from

- i. 2-[7-(4-Methanesulfonyl-benzyl)-4-morpholin-4-yl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 2-[7-(4-Methanesulfonyl-benzyl)-4-methylamino-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 5 2-[7-(3,4-Dimethoxy-benzyl)-4-(3-oxo-piperazin-1-yl)-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 10 2-[4-(2-Cyclohex-1-enyl-ethylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 2-[4-(Butoxycarbonylmethyl-amino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 15 2-(4-Cyclopentylamino-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino)-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 4-Methyl-2-{4-[(5-methyl-furan-2-ylmethyl)-amino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-thiazole-5-carboxylic acid ethyl ester;
- 20 4-Methyl-2-{4-[3-(2-methyl-piperidin-1-yl)-propylamino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-thiazole-5-carboxylic acid ethyl ester;



- 4-Methyl-2-[4-(2-oxo-azepan-3-ylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 5 4-Methyl-2-{ 7-pyridin-3-ylmethyl-4-[(thiophen-2-ylmethyl)-amino]-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino }-thiazole-5-carboxylic acid ethyl ester;
- 2-[4-(3-Imidazol-1-yl-propylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 10 4-Methyl-2-[4-(1-carboxyethyl-piperidin-4-ylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 2-[4-(6-Dimethylamino-hexylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 15 4-Methyl-2-[4-(2-pyridin-4-yl-ethylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 2-[4-(4-Hydroxy-butylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 20 2-{4-[(1-Ethyl-pyrrolidin-2-ylmethyl)-amino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-4-methyl-thiazole-5-carboxylic acid ethyl ester;

- 2-[4-(2-Acetylamino-ethylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 5 4-Methyl-2-{4-[2-(1-methyl-pyrrolidin-2-yl)-ethylamino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-thiazole-5-carboxylic acid ethyl ester;
- 2-[4-(1-Hydroxymethyl-butylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 10 4-Methyl-2-[4-(3-morpholin-4-yl-propylamino)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 2-{4-[2-(1H-Imidazol-4-yl)-ethylamino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 15 2-[4-{(S)-2-Carbamoyl-pyrrolidin-1-yl}-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 20 2-[4-(3-Hydroxy-pyrrolidin-1-yl)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 4-Methyl-2-(4-morpholin-4-yl-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino)-thiazole-5-carboxylic acid ethyl ester;

- 4-Methyl-2-{4-[methyl-(1-methyl-piperidin-4-yl)-amino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo [2,3-d]pyrimidin-2-ylamino}-thiazole-5-carboxylic acid ethyl ester;
- 5 2-[4-(3-Diethylcarbamoyl-piperidin-1-yl)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 2-{4-[4-(2-Hydroxy-ethyl)-piperidin-1-yl]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 10 4-Methyl-2-{4-[4-(2-oxo-2-pyrrolidin-1-yl-ethyl)-piperazin-1-yl]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-thiazole-5-carboxylic acid ethyl ester;
- 2-{4-[4-(Furan-2-carbonyl)-piperazin-1-yl]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-4-methyl-thiazole-5-carboxylic acid ethyl ester,
- 15 2-[4-(4-Hydroxy-piperidin-1-yl)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 20 2-[4-(3-Acetylamino-pyrrolidin-1-yl)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 2-{4-[Ethyl-(1-ethyl-pyrrolidin-3-yl)-amino]-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-4-methyl-thiazole-5-carboxylic acid ethyl ester;

- 4-Methyl-2-[4-(4-carboxyethyl-piperidin-1-yl)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 5 2-[4-(4-Acetyl-piperazin-1-yl)-7-pyridin-3-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 4-Methyl-2-{4-[3-(2-oxo-pyrrolidin-1-yl)-propylamino]-7-[4-(1H-tetrazol-5-yl)-benzyl]-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino}-thiazole-5-carboxylic acid ethyl ester;
- 10 4-Methyl-2-(4-morpholin-4-yl-6-oxo-7-pyridin-4-ylmethyl-5,6-dihydro-pyrrolo[2,3-d]pyrimidin-2-ylamino)-thiazole-5-carboxylic acid ethyl ester;
- 4-Methyl-2-[4-morpholin-4-yl-8-(4-sulfamoyl-benzyl)-5,6,7,8-tetrahydro-pyrido[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 15 4-Methyl-2-[4-methylamino-8-(4-sulfamoyl-benzyl)-5,6,7,8-tetrahydro-pyrido[2,3-d]pyrimidin-2-ylamino]-thiazole-5-carboxylic acid ethyl ester;
- 20 2-[8-(4-Ethanesulfonylamino-benzyl)-4-(3-oxo-piperazin-1-yl)-5,6,7,8-tetrahydro-pyrido[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;
- 2-[4-(2-Acetylamino-ethylamino)-8-(4-ethanesulfonylamino-benzyl)-5,6,7,8-tetrahydro-pyrido[2,3-d]pyrimidin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid ethyl ester;

2-[8-(4-Methanesulfonylamino-carbonyl-benzyl)-4-(3-oxo-piperazin-1-yl)-  
5,6,7,8-tetrahydro-pyrido[2,3-d]pyrimidin-2-ylamino]-4-methyl-  
thiazole-5-carboxylic acid ethyl ester;

2-[4-(4-Hydroxy-piperidin-1-yl)-9-(4-sulfamoyl-benzyl)- 5,6,7,8-tetrahydro-  
5 pyrimido[4,5-b]azepin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid  
ethyl ester; or

2-[4-(4-Acetyl-[1,4]diazepan-1-yl)-9-(4-sulfamoyl-benzyl)-5,6,7,8-tetrahydro-  
pyrimido[4,5-b]azepin-2-ylamino]-4-methyl-thiazole-5-carboxylic acid  
ethyl ester; or

10 ii. the enantiomers, diastereomers, and pharmaceutically acceptable salts,  
prodrugs and solvates of each of (i).

15. A pharmaceutical composition comprising at least one compound of  
claim 1.

16. The pharmaceutical composition of claim 16 comprising at least one  
15 compound of claim 14.

17. The pharmaceutical composition of claim 15 further comprising at  
least one additional therapeutic agent suitable for the treatment of leukocyte  
activation-associated diseases.

20

18. The pharmaceutical composition of claim 17 wherein the at least one  
additional therapeutic agent is selected from PDE4 inhibitors, consisting of NSAIDs,  
COX-2 inhibitors, TNF- $\alpha$  inhibitors, beta-2 agonists, anti-cholinergic agents, and  
steroids.

25 19. A method of treating leukocyte activation-associated disorders which  
comprises administering an effective amount of at least one composition of claim 1 to  
a patient in need thereof.

20. The method of claim 19 wherein said disorder is transplant rejection, graft versus host disease, rheumatoid arthritis, multiple sclerosis, juvenile diabetes, asthma, inflammatory bowel disease, ischemic or reperfusion injury, cell proliferation, or psoriasis.